## **CLAIMS**

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- A lighting device including at least a light source (LS) for emitting light rays and means for guiding said light rays on a projection plane (PP), characterized in that said guiding means are formed by a lens (OD) presenting a cylindrical portion (CYL) extending along an axis (AX) perpendicular to said projection plane and at least a convex shaped surface (CSH) extending at an extremity of said cylindrical portion and adapted to direct a portion of the light rays emitted from said light source towards said projection plane.
- A lighting device as claimed in Claim 1, wherein said cylindrical portion has a base choosen among a circular base, a curve base, a meniscus base, a fresnel base.
- A lighting device as claimed in Claim 1, wherein said lens is shaped such as two convex surfaces are extending at both extremities of said cylindrical portion.
- 4 A lighting device as claimed in Claim 1, wherein said convex surface is an hemispherical surface symetrical in rotation around said cylindrical portion axis.
- A lighting device as claimed in Claim 1, wherein said convex surface is parabolic.
  - A lighting device as claimed in Claim 1, said lighting device comprising several light emitting diodes for a same lens.
  - A lighting device as claimed in Claim 1, wherein said projection plane is a sheet of a transparent material adapted to transmit the light by refraction and diffusion.
- A lighting device as claimed in Claim 1, wherein said lighting device further includes an optical element (GOB) placed beyond the lens with respect to the light source, said optical element presenting features drawn line by line in order that said lighting device project a signifiant image on said projection plane.